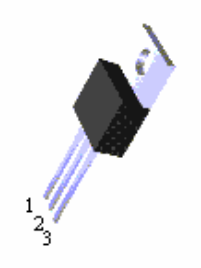
PJ13005

NPN Epitaxial Silicon Transistor

HIGH VOLTAGE SWITCH MODE APPLICATION

- High Speed Switching
- Suitable for Switching Regulator and Motor Control

TO-220



Pin : 1. Base
2. Collector
3. Emitter

ABSOLUTE MAXIMUM RATINGS (Ta = 25℃)

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage(V_{BE}=1.5V)	V_{CEV}	700	V
Collector Emitter Voltage(open base)	V_{CEO}	400	V
Emitter Base Voltage(open collector)	V_{EBO}	9	V
Collector Current (DC)	Ic	3	A
Collector Current (Pulse)	Ic	6	A
Base Current	I_B	2	A
Collector Dissipation	Pc	75	W
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-65 ~150	℃

ORDERING INFORMATION

Device	Operating Temperature	Package
PJ13005CZ	-20℃～+85℃	TO-220

ELECTRICAL CHARACTERISTICS(Ta = 25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
*Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	Ic = 10mA, I_B = 0	400			V
Emitter Cutoff Current	I_{EBO}	V_{EB} =9V, Ic=0			1	mA
*DC Current Gain	h_{FE}	V_{CE} =5V, Ic =1A	10		60	
		V_{CE} =5V, Ic =2A	8		40	
*Collector Emitter Saturation Voltage	V_{CE} (sat)	Ic =1A, I_B =0.2A			0.5	V
		Ic =2A, I_B =0.5A			0.6	V
		Ic =4A, I_B =1A			1.0	V
*Base Emitter Saturation Voltage	V_{BE} (sat)	Ic =1A, I_B =0.2A			1.2	V
		Ic =2A, I_B =0.5A			1.6	V
Turn On Time	t_{on}	V_{CC} =125V, Ic =2A			0.8	μS
Storage Time	ts	I_{B1} =-I_{B2} =0.4A			4	μS
Fall Time	t_f				0.9	μS

- Pulse Test: PW≤300 μS, Duty Cycle =1.5 %

TO-220 Unit:mm